

11 Jun 1991

OH0NQ-B

MEGOHMMETER

1. GENERAL. This procurement requires a hand-held, battery powered, electrical insulation tester for use in determining insulation resistance of electrical circuits, motor windings, antenna transmission lines, and system components.

2. CLASSIFICATION. Type II, Class 3, Style ES, and Color R in accordance with MIL-T-28800 for shipboard applications with the following exceptions.

- a. The handle requirement is not invoked.
- b. The electromagnetic interference requirements are not invoked.
- c. The transit drop test is invoked with a drop height of 122 cm (48 in).

3. OPERATIONAL REQUIREMENTS. The equipment shall operate within the minimum ranges and accuracies specified below.

3.1 Test voltages. Selectable 250, 500, and 1,000 Vdc. Accuracy: $\pm 10\%$ into 20 megohms.

3.2 Insulation test range. 500 kilohms to 200 megohms. Accuracy: $\pm 3\%$ of reading.

3.3 Display. LCD: 3 digits minimum. 9 mm (0.35 in.) digit height minimum.

3.3.1 Battery monitor. The equipment shall monitor battery status and indicate a low battery condition.

3.4 Safety operation. The equipment shall provide a visible indication when leads are connected to voltages in excess of 30 Vrms, 60 Vdc, and 24.8 Vdc interrupted at a rate of 24 to 200 Hz.

3.4.1 Circuit discharge. The circuit under test shall be automatically discharged upon completion of an insulation test. The internal discharge load shall be less than 500 kilohms.

3.5 Voltmeter operation. The equipment shall provide voltmeter operation for 0 to 600 Vac and 0 to 350 Vdc. Accuracy: $\pm 5\%$ full scale.

3.6 Ohmmeter operation. 0 to 200 ohms $\pm 5\%$ of reading.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 dc internal power source requirements are invoked in lieu of nominal power source requirements. Batteries shall be of a commercially available type and shall provide 12 months of normal operation before replacement is required.

4.2 Weight. 1 kg (2.2 lb) with batteries installed.

4.3 Dimensions. 203 mm (8 in.) x 96.5mm (3.8 in.) wide x 51 mm (2 in.) deep nominal.

4.4 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall

apply only to the specific model proposed.

4.5 Accessories. Two 1m (40 in.) test leads with probes and detachable insulated spring clips.